BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 3RD AND FINAL BILL

Name of work: Package - 1 (Including 8 Works) 1) Improvements to Roads and Drains at Krishna Green Apartment Cross Roads Deshabhandunagara in Ward No. 09, Vidyaranyapura. 2) Construction of Culverts in Ward No. 09 Vidyaranyapura. 3)Improvements to Roads and Drains at 1st Main Hanuman Layout Main Road in Ward No. 09, Vidyaranyapura. 4) Improvements to Roads and Drains at NTI Layout 3rd Cross in Ward No. 09, Vidyaranyapura. 5)Improvements to Roads and Drains at Resina from Deshabhandunagara in Ward No. 09, Vidyaranyapura. 6) Construction of Toilet Block at Samudhaya Bhavana and Balance Portion of Concrete Road at Kempegowdanagara in Ward No. 09, Vidyaranyapura. 7) Improvements to Roads and Drains at 9th Main Deshabandhunagara in Ward No. 09, Vidyaranyapura. 8) Improvements to Roads and Drains at at behind Kote Anjaneyswamy Temple Cross Roads Vidyaranyapura in Ward No. 09, Vidyaranyapura

Estimated Cost : Rs. 200.00 Lakhs

Head of Account : P-3165 Development Works

Name of Agency: Sri Alankar K.B, #-12, MSV Network Road, near Shobha Apartment, Amruthahalli, Sahakaranagara (Post), Bangalore - 92.

Work order No: BBMP/EE/BTP/WO/88/2018-19 Dated: 30.08.2018.

Measurements Recarded on :

SL. No	DESCRIPTIONS	NO	Length	Width 1	width 2	Average Width	Depth	Quntity	Unit / Rate in Rs.	Amount in Rs.
			meters	meters	meters	meters	meters			
1	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods etc complete as per specifications and directions of engineer in charge of the work								Cum	
							Previous Qty=	**103.82**		
	For Anganavadi Toilet	2	3.00			0.90	0.75	4.05		
		3	1.90			0.90	0.75	3.85		
							Total Qty=	**111.72**		
							Qty Limited to Tender Qty=	**110.40**		
							Deduct Previsous Qty	**-103.82**		
							Present Qty=	**6.58**	396.00	**2606.00**
2	Excavation for road, drains and similar works KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods etc complete as per specifications and directions of engineer in charge of the work								Cum	
							Previous Qty=	**986.32**		
							Present Qty=	**NIL**		
3	Removing and refixing stone slabs of drains and pointing in CM (1:3) etc complete as per specifications and directions of engineer in charge of the work								Sqm	
							Previous Qty=	**3418.20**		
							Present Qty=	**NIL**		
4	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing etc complete as per specifications and directions of engineer in charge of the work								Sqm	

Contractor

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore-97

SL. No	DESCRIPTIONS	NO	Length	Width 1	width 2	Average Width	Depth	Quantity	Unit / Rate in Rs.	Amount in Rs.
			meters	meters	meters	meters	meters			
11	Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing etc complete as per specifications and directions of engineer in charge of the work								Cum	
	For Anganavadi Toilet	2	3.00			0.20	0.10	0.12		
		3	1.90			0.20	0.10	0.11		
	For Samudhaya Bhavana Walls	2	1.80			0.20	0.10	0.07		
		1	2.60			0.20	0.10	0.05		
							Total Qty=	0.36	6435.00	**2304.00**
12	Providing and laying cement concrete using 20 mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) M 20 for R.C.C works laid in 15 cms thick layers and well compacted vibrating, curing, for raft foundation column footing , main and secondary beams with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) etc complete as per specifications and directions of engineer in charge of the work								Cum	
							Previous Qty=	147.24		
							Present Qty=	NIL		
13	Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 - TMT bars Fe 500 etc complete as per specifications and directions of engineer in charge of the work								Tonnes	
							Previous Qty=	8.83		
							Present Qty=	0.26		
							Total Qty=	9.09		
							Deduct Previous Qty	-8.83		
							Present Qty=	0.26	69300.00	**18018.00**
14	Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for **vertical surface such as walls at any thickness**, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour etc complete as per specifications and directions of engineer in charge of the work								Sqm	
							Previous Qty=	883.86		
							Present Qty=	NIL		
15	Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing etc complete as per specifications and directions of engineer in charge of the work								Sqm	
							Previous Qty=	1945.60		
							Present Qty=	NIL		
16	Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing etc complete as per specifications and directions of engineer in charge of the work								Sqm	
	For Anganavadi Toilet	2	3.00			3.00	18.00			
		3	1.90			3.00	17.10			
	For Samudhaya Bhavana Walls	2	1.80			3.00	10.80			
		1	2.60			3.00	7.80			
	Deduction for Door	4	0.75			2.10	-6.30			
							Total Qty=	47.40	990.00	**46926.00**

Contractor

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

SL. No	DESCRIPTIONS	NO	Length	Width 1	width 2	Average Width	Depth	Quntity	Unit / Rate in Rs.	Amount in Rs.
			meters	meters	meters	meters	meters			
24	**Providing TRAPEZOIDAL PROFILED SHEET** Providing and installing of pre painted Galvolume iron Trapezoidal profiled sheet of approved make 1060 mm width (1000 mm cover width), 28-30 mm crest height with crest distance of 200 mm c/c with 2 ribs at the centre for stiffening. The total coated thickness (TCT) of the sheet will be 0.47 mm +/- 0.02 mm tolerance Zinc-Alu Alloy coating AZ150 gsm as per ASTM 1397/A755-550 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 20-22 microns using self drilling/self tapping screws of 25 mm length, to be fixed over the existing purlins, rafters, channels and trusses.								Sqm	
	RCC Drain Slab	1	3.00			2.00		6.00		
							Total Qty=	**6.00**	990.00	**5940.00**
25	Providing 18mm thick cement plaster in single coat with cement mortar 1:4, to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. **(Inside Wall)**								Sqm	
		2	3.00				3.00	18.00		
		4	1.90				3.00	22.80		
		2	1.80				3.00	10.80		
		1	2.60				3.00	7.80		
		2	0.75				2.10	-3.15		
							Total Qty=	**56.25**	297.00	**16706.00**
26	Providing 18mm thick cement plaster in single coat with cement mortar 1:4, to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. **(Outside Wall)**								Sqm	
		2	3.00				3.00	18.00		
		2	1.90				3.00	11.40		
		2	1.80				3.00	10.80		
		1	2.60				3.00	7.80		
		2	0.75				2.10	-3.15		
							Total Qty=	**44.85**	297.00	**13320.00**
27	Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic tiles 30cm x 60cm 6mm thick on a bed of 20mm thick								Sqm	
		2	1.90			1.90		7.22		
							Total Qty=	**7.22**	1485.00	**10722.00**
28	Providing skirting, dado, rises of steps with colour glazed tiles on 10mm thick cement plaster 1:3 and jointed with white cement slurry over rough plaster surface (excluding cost of rough plastered surface which should be measured and paid separately) using glazed tiles of approved make and size including cost of materials, labour, complete as per specifications. Specification No.KBS 14.16, 14.17 - Colour glazed tiles 30x60 cms 6mm thick with border of size 30 x 60 cms.								Sqm	
		4	1.90				2.10	15.96		
							Total Qty=	**15.96**	1782.00	**28441.00**
29	SOLID PVC DOOR FRAME Providing & fixing factory made PVC Door frame of size 50x47mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet metered cut at corners & jointed 2 No.s of 150mm long brackets of 15x15mm M.S Square tube, the entire door frame to be reinforced with 19x19mm M.S Square tube of 19 gauge. The door frame to be fixed to the wall using M.S. Screws of 65/80mm size								Sqm	
		4	0.75				2.10	6.30		
							Total Qty=	**6.30**	644.00	**4057.00**

Contractor

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engin
Vidyaranyapura Sub Divis
BBMP, Bangalore - 97

SL. No	DESCRIPTIONS	NO	Length	Width 1	width 2	Average Width	Depth	Quntity	Unit / Rate in Rs.	Amount in Rs.
			meters	meters	meters	meters	meters			
30	SOLID PANEL PVC DOOR SHUTTER Providing & fixing 30mm thick factory made rigid foam Panelled Door Shutters made from M.S. tube of 19 gauge thickness, size 19x19mm fro styles and 15x15mm for top & bottom rails, covered with heat moulded PVC channel of 5mm thick sheet & 30 x 50mm wide to form styles & 5mm thick & 75mm wide PVC Sheets for top rail, lock rail & bottom rail on either side & 5mm thick 20mm wide PVC sheet as gap insert for top rail & bottom rail, Panelling of 5mm thick PVC sheet fitted in the M.S. Frame, Sealed to the styles & rails with 5x30mm PVC sheet beading on either side & joined together with solvent cement adhesive etc., Complete as per manufacturers specification & direction of Engineer-in-charge fixed to frames with 3 nos of 75 m.m Aluminium hinges.								Sqm	
		4	0.75				2.10	6.30		
							Total Qty=	**6.30**	3960.00	**24948.00**
31	Providing and fixing white vitreous china clay, water closet **Indian type** (Squatting pan) of size 580mm with footrests, 100mm S or P trap, 10 litre low level, P.V.C **flushing cistern** (all are approved make) with fittings, C.I / M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications.								Pan	
		2						**2**	4158.00	**8316.00**
32	**Providing and fixing white vitreous china clay, flat back wash basin size 630x450mm** with a pair of 15mm C.P brass pillar taps with C.I / M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications.								Unit	
		2						**2**	4552.00	**9104.00**
33	**Providing and fixing to wall, ceiling and floor galvanised / mild steel tube 32mm** dia nominal bore with fittings (medium grade weight 1.65 kg/mtr) B class including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications.								M	
		1	30.00					**30.00**	425.00	**12750.00**
34	Supplying water **storage tanks made of virgin polymer (LLDPE)** with two layers outer Black or Blue and inner White layer of approved quality and make, conforming to I.S.I./ISO/SSI specifications.								L	
		1	500.00					**500**	8.00	**4000.00**
35	Providing and fixing in **position brass stop cock of approved quality 20mm** nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications.								Each	
		12						**12**	198.00	**2376.00**
36	Providing and laying in **position to required level or slope 150mm internal diameter salt glazed stoneware pipes** grade A and jointing with stiff mixture of cement mortar in proportion of 1:1, testing of pipes and joints,including cost of materials, labour charges complete as per specifications.								M	
		1	10.00					**10.00**	446.00	**4460.00**

Contractor

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engine
Vidyaranyapura Sub Divisi
BBMP, Bangalore - 97

	DESCRIPTIONS	NO	Length	Width 1	width 2	Average Width	Depth	Quntity	Unit / Rate in Rs.	Amount in Rs.
			meters	meters	meters	meters	meters			
	ement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications etc complete as per specifications and directions of engineer in charge of the work	37						Cum		
							Previous Qty=	69.31		
							Present Qty=	NIL		
	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc complete as per specifications and directions of engineer in charge of the work	38						Sqm		
							Previous Qty=	654.50		
							Present Qty=	NIL		
	Scarifying kankar / gravel / metal crust upto 150mm thick with pick axes and disposal of stuff including cost of all labour charges complete as per specifications etc complete as per specifications and directions of engineer in charge of the work	39						Sqm		
							Previous Qty=	3589.00		
							Present Qty=	NIL		
	Wet Mix Macadam - Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density etc complete as per specifications and directions of engineer in charge of the work	40						Cum		
							Previous Qty=	965.55		
							Present Qty=	NIL		
	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means etc complete as per specifications and directions of engineer in charge of the work	41						Cum		
							Previous Qty=	4468.00		
							Present Qty=	NIL		
	Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen etc complete as per specifications and directions of engineer in charge of the work	42						Cum		
							Previous Qty=	178.72		
							Present Qty=	NIL		
							Grand Total		=	270383.00

Rupees Two Lakh(s) Seventy Thousand Three Hundred Eighty Three Only

Contractor

Assistant Engineer

Assistant Executive Engineer

Assistant Execut
Vidyaranyapura S
BBMP, Bange